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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/581,951	08/25/2006	Beat Schilling	CU-4849 RJS	7391

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EXAMINER

LARKIN, DANIEL SEAN

ART UNIT	PAPER NUMBER
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2856

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/581,951	Applicant(s) SCHILLING ET AL.	
	Examiner DANIEL S. LARKIN	Art Unit 2856	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 August 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 03/019149 (Abdel-Rehim) in view of US 5,064,418 (Cronin).

With respect to the limitations of claim 1, Abdel-Rehim discloses a method and apparatus for sample preparation using solid phase microextraction (SPME), comprising the steps of: providing a syringe (2) and hollow needle (8); drawing a sample for extraction and introduction into a gas chromatograph, whereby for extraction of an analyte of interest the sample is flushed through a stationary material (10, 11). Abdel-Rehim fails to expressly disclose that the sample extracted is a gaseous sample; however, the examiner argues that the device utilized in Abdel-Rehim is capable of being used with a gaseous sample because SPME can be used with both liquid and gaseous samples. Abdel-Rehim also fails to locate the stationary phase between the hollow needle and the syringe.

Cronin discloses an apparatus utilizing filter means for use with a syringe and needle, whereby the apparatus, comprises a hollow needle (12) connected to a syringe (10), wherein in between the needle (12) and the syringe(10), a chamber (18)/filter (11)

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is located containing a filter material (23) within. The filter material also appears to have a volume greater than the volume of the hollow needle (12). Modifying the syringe of Abdel-Rehim with the arrangement of Cronin would have been obvious to one of ordinary skill in the art as means of containing the filter material as well as allowing the operator to utilize a “good” amount of stationary material without hampering the movement of the syringe piston; thus allowing for more sample to be collected for greater accuracy.

As to the limitation of providing a stationary phase material having a volume greater than the interior of the needle, the examiner argues that this feature is well within the purview of one of ordinary skill in the art as means of controlling the amount of sample to be contained within the stationary material,; and furthermore adjusting the size of the stationary material to find the optimum result is also deemed to be obvious to one of ordinary skill in the art. Applicants' have failed to provide any argument of criticality for providing stationary material having a volume greater than the interior volume of the needle, which leads the examiner to believe that this feature is simply a choice of design which would be obvious to one of ordinary skill in the art.

With respect to the limitation of claim 2, Abdel-Rehim discloses a syringe (2) and a hollow needle (8) connected to the syringe body (2) wherein, the syringe body contains an extraction material (11), which may comprise filter material having a coating. Abdel-Rehim fails to expressly provide a chamber between the needle and the syringe.

Cronin discloses an apparatus utilizing filter means for use with a syringe and needle, whereby the apparatus, comprises a hollow needle (12) connected to a syringe (10), wherein in between the needle (12) and the syringe(10), a chamber (18)/filter (11) is located containing a filter material (23) within. The filter material also appears to have a volume greater than the volume of the hollow needle (12). Modifying the syringe of Abdel-Rehim with the arrangement of Cronin would have been obvious to one of ordinary skill in the art as means of containing the filter material as well as allowing the operator to utilize a “good” amount of stationary material without hampering the movement of the syringe piston; thus allowing for more sample to be collected for greater accuracy.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over WO 03/019149 (Abdel-Rehim) in view of US 5,064,418 (Cronin) as applied to claim 2 above, and further in view of JP 10-10104 (Takii et al.).

Abdel-Rehim discloses using a solvent to transport the collected sample to the chromatograph; but, fails to disclose heating means attached to the chamber. Cronin also fails to disclose use of heating means.

Takii et al. disclose a syringe measuring device used to inject a sample into a gas chromatograph, whereby the device is provided with a syringe (20) having a hollow needle (42) attached. The syringe is placed within a case (12) that acts as a heater for the syringe, see Figures 1, 3, and 5. Providing a heater for the syringe/chamber would have been obvious to one of ordinary skill in the chromatography art as a means of

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desorbing the sample from the stationary/extraction material in order for the gas chromatograph to detect the sample.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over WO 03/019149 (Abdel-Rehim) in view of US 5,064,418 (Cronin) as applied to claim 2 above, and further in view of US 4,849,179 (Reinhardt et al.).

Abdel-Rehim discloses using a solvent to transport the collected sample to the chromatograph; but, fails to disclose heating means attached to the chamber. Cronin also fails to disclose use of heating means.

Reinhardt et al. teach the use of a thermal desorption heater (9) in an injector for a gas chromatograph; see abstract and Figure 2. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use a heater as taught by Reinhardt et al. in the invention taught by Abdel-Rehim in view of Cronin to desorb the sample, since Reinhardt et al. teach the use of a heater surrounding the extraction material for desorption to assist in transferring trace amounts of absorbed substances into a gas chromatograph; see columns 1-2.

Response to Arguments

Applicants' arguments filed 31 August 2009 have been fully considered but they are not persuasive.

With respect to Applicants' argument that Abdel-Rehim is directed to the solid phase microextraction (SPME) of liquid samples and clearly excludes gaseous samples, the examiner respectfully disagrees. While Abdel-Rehim clearly discloses use of SPME for a liquid sample, the express absence of a teaching for use for gaseous samples does not expressly mean that such use is not inherent. It is well known that SPME can be used for gas sampling, see US 2001/0032521 (Pawliszyn) paragraphs [0040-0042]; US 2004/0091400 (Wada et al.) paragraph [0041]; US 2005/0233085 (Miller et al.) paragraph [0009]; and US 6,825,046 (Forsyth) Figure 4, such that its use for gas sample would be well known to those of ordinary skill in the art. Moreover, while Abdel-Rehim fails to expressly state use of SPME for gaseous samples, Applicants have failed to provide any argument as to why the apparatus described within Abdel-Rehim would not be capable of use with a gaseous sample. Applicants appear to be only arguing the text of the reference rather than the inherent properties of the structure used to manufacture the apparatus.

With respect to Applicants' argument that Cronin fails to teach use of a gaseous sample and is not directed to SPME, the examiner agrees. As to Applicants' argument that Cronin is not relevant, the examiner disagrees. Cronin teaches a filter means for use with a syringe and needle which is analogous to Abdel-Rehim. Both references are concerned with sampling a portion or constituent from a larger sample. Additionally, Cronin was presented to specifically teach the arrangement of the stationary phase between a hollow needle and a syringe and nothing more.

With respect to Applicants' argument that Takii et al. and Reinhardt et al. fail to cure Applicants' perceived deficit found in Adbel-Rehim, the examiner simply argues that these two references were not cited to teach the supposed deficit Applicants are arguing.

Conclusion

The prior art made of record and not relied upon is considered pertinent to Applicants' disclosure.

The prior art to US Re 36,811 (Markell et al.) disclose a solid phase extraction medium which is effective in removing polar compounds, such as certain pollutants from gas samples, see col. 9, lines 43-47.

THIS ACTION IS MADE FINAL. Applicants are reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANIEL S. LARKIN whose telephone number is (571)272-2198. The examiner can normally be reached on 8:30 AM - 5:00 PM Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams can be reached on 571-272-2208. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Daniel S. Larkin/
Primary Examiner, Art Unit 2856